

Title: PROCESSING OF SELF-MODIFYING CODE UNDER EMULATION

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FIG. 1

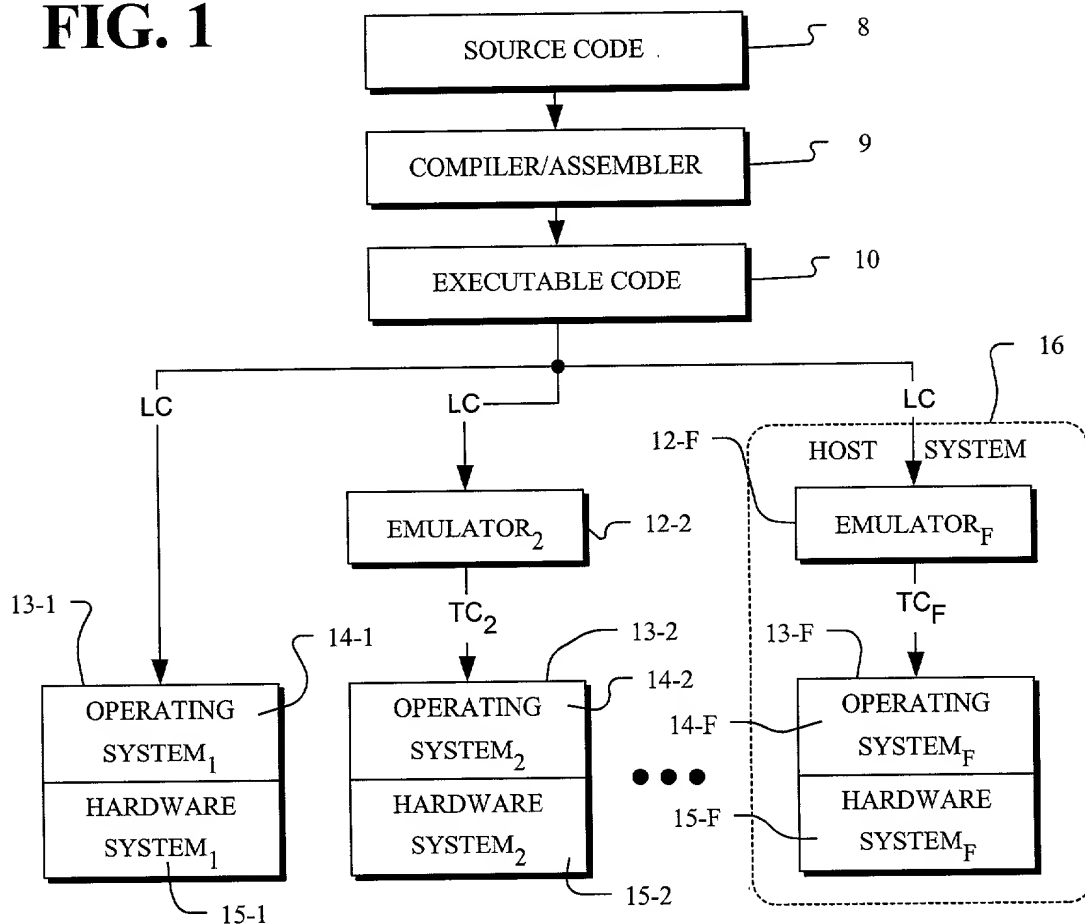
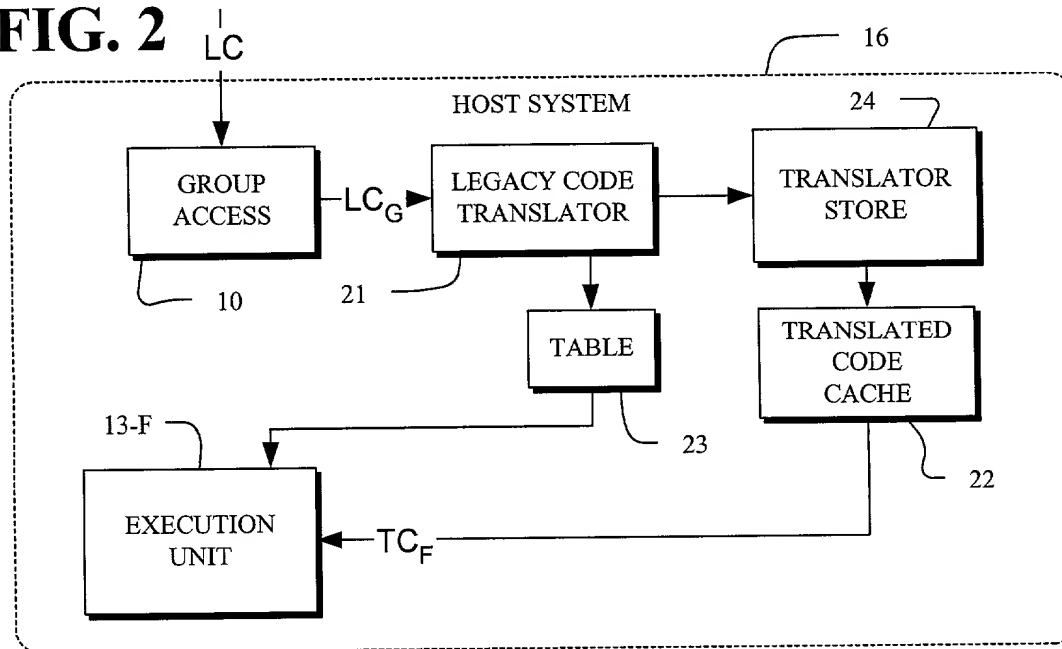


FIG. 2



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LEGACY CODE (CISC)

100	START	BALR	B1,R0
102	BASE	LM	R1,R2,DATA1
106		MVC	DATA1,DATA3
10C		AH	R1,DATA2
110		SRA	R1,1
114		SH	R2,DATA2
118		AR	R1,R2
11A		BC	TARGET
120	DATA1	DC	X'005390BC'
		DC	X'09C20004'
128	DATA2	DC	X'0009'
12A	DATA3	DC	X'800039AF'

FIG. 3



TRANSLATED CODE (RISC)

100	START	BALR	B1,R0
102	BASE	LM	R1,R2,DATA1
106		MVC	DATA1,DATA3
10C		AH	R1,DATA2



BALRMOV	B1	BASE
LM	ADD	A1 B1,DATA1 - BASE
	LD4	R1 [A1]
	ADD	A1 A1,4
	LD4	R2 [A1]
MVC	ADD	A1 B1,DATA1-BASE
	ADD	A2 B1,DATA3-BASE
	LD4	T1 [A2]
	ST4	T1 [A1]
AH	ADD	A1 B1,DATA2 -BASE
	LD2	T1 [A1]
	ADD	R1 R1,T1
B		XFER_SEQUENTIAL

110		SRA	R1,1
114		SH	R2,DATA2
118		AR	R1,R2
11A		BC	TARGET
120	DATA1	DC	X'005390BC'
		DC	X'09C20004'
128	DATA2	DC	X'0009'
12A	DATA3	DC	X'800039AF'



SRA	SHR	R1 1
SH	ADD	A1 B1,DATA2 -BASE
	LD2	T1 [A1]
	SUB	R2 R2,T1
AR	ADD	R1 R1,R2
BC	ADD	A1 B1,TARGET - BASE
B		XFER_BRANCH

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